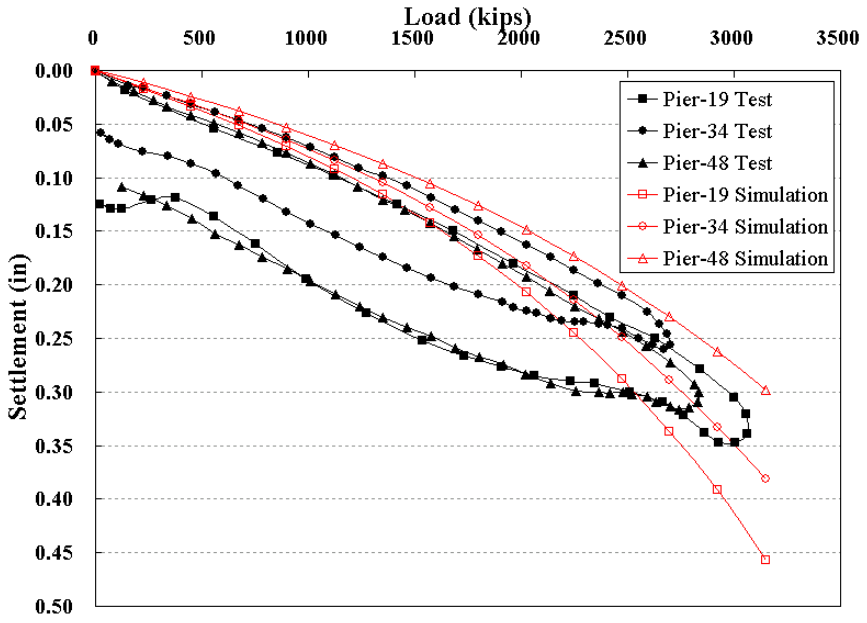

Figure 124. Results of Pier-19, Pier-34, and Pier-48

TS-1 and TS-2

Testing on drilled shafts TS-1 and TS-2 were performed for measuring side shear resistance and end bearing on January 6th 2003 by NCDOT. Both shafts were constructed with a temporary oversized upper isolation casing and a short upper permanent casing, 36 inches (91.4cm) in diameter. TS-1 was 13.2 feet (4.02m) and TS-2 was 31.8 feet (9.69m) as shown in Table 40. A permanent casing with a 36 inch (91.4cm) outer diameter and 1/2 inch (1.27cm) wall thickness was installed to a depth of 7.5 feet (2.29cm) for TS-1 and 8.75 feet (2.67cm) for TS-2. For TS-2 especially, Styrofoam was placed at the toe of the shaft for negating end bearing resistance (i.e. measuring mostly the skin friction.)

The top soil at the site consisted of embankment fill and coarse to fine sandy clay (A-6) with a depth of 6 (1.83m) to 7 feet(2.13m). This soil layer is underlain by weathered metamorphic granite rock. The N-values were over 100 in the weathered rock layer and the groundwater table was present at about 18(5.49m) to 20 feet (6.1m), as shown in Appendix B.